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**IN THE UNITED STATES PATENT OFFICE**

Patent of: Icron Systems Inc.

Docket No.: 1038-8/GAG

Patent Number: US 6381666 B1 (Serial No. 09/506802)

Issued: 30 April 2002 (filed 18 February 2000)

Title: **METHOD AND APPARATUS FOR EXTENDING THE RANGE OF  
THE UNIVERSAL SERIAL BUS PROTOCOL**

The Commissioner of Patents  
The United States Patent Office  
Crystal Plaza Two, 2011 Jefferson Davis Highway  
Arlington, Virginia 22202 USA

**Certificate**

**JUN 13 2002**

**of Correction**

May 31, 2002

Sir:

**REQUEST FOR CORRECTION TO LETTERS PATENT**

This letter follows our receipt of the Letters Patent in the above noted patent. A copy of the front page of the issued patent showing the requested correction, is **enclosed** herewith for ease of reference.

The Letters Patent notes Igron Systems Inc as the Assignee herein. However, the correct name of the Assignee is Icron Systems Inc., as evidenced by the Assignment Recordal dated 1 May 2000 (Reel 010578 / Frame 0959, recorded 18 February 2000), a copy of which is **enclosed** herewith for ease of reference. A copy of the form PTO-85 submitted 20 February 2002 is also **enclosed** clearly indicating the Assignee's name as Icron Systems Inc. The Office is requested to kindly issue a Certificate of Correction for the aforementioned Letters Patent and forward the same to the undersigned, at the earliest opportunity.

Respectfully submitted, **MARKS & CLERK**

**Per: Gerald A. Gowan**

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encls: US 6381666 B1, Assignment Recordal of 1 May 2000

**GOWAN, Gerald A. (37,041) HEWSON, Donald E. (22,241)**



US006381666B1

(12) **United States Patent**  
**Kejser et al.**

(10) **Patent No.:** **US 6,381,666 B1**  
(45) **Date of Patent:** **Apr. 30, 2002**

(54) **METHOD AND APPARATUS FOR  
EXTENDING THE RANGE OF THE  
UNIVERSAL SERIAL BUS PROTOCOL**

(75) **Inventors:** **Keith Kejser**, New Westminster; **Juraj  
Krajci**, Coquitlam, both of (CA)

(73) **Assignee:** **Icron Systems Inc.**, Burnaby (CA)

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/506,802**

(22) **Filed:** **Feb. 18, 2000**

(30) **Foreign Application Priority Data**

Feb. 19, 1999 (CA) ..... 2262334  
Apr. 26, 1999 (CA) ..... 2269961

(51) **Int. Cl.<sup>7</sup>** ..... **G06F 13/00**

(52) **U.S. Cl.** ..... **710/300; 710/100; 710/305;  
710/316; 710/62**

(58) **Field of Search** ..... **710/100, 62, 63,  
710/300, 305, 306, 316, 317**

(56)

**References Cited**

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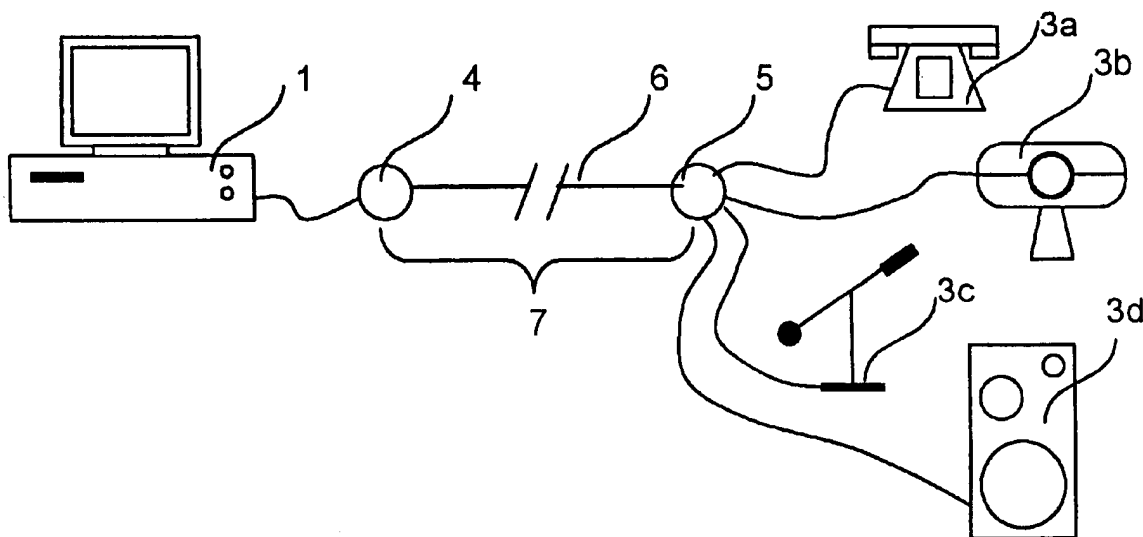
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(57) **ABSTRACT**

The present invention provides a method and apparatus to be used to extend the range of a standard USB devices. An extended range hub is provided which comprises a Local Expander (LEX) and a Remote Expander (REX) which can be separated by up to, for example 100 metres. The method and apparatus permits USB devices to be more conveniently located and used.

**40 Claims, 30 Drawing Sheets**



UNITED STATES PATENT AND TRADEMARK OFFICE

**CERTIFICATE OF CORRECTION**

PATENT NO. 6,381,666  
DATED April 30, 2002  
INVENTOR(S) Keith Kejser, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page item [73], should read – Icron Systems Inc.,--

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UNITED STATES PATENT AND TRADEMARK OFFICE

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